

REMARKS/ARGUMENTS

Claims 1-53 were pending. In this amendment, no claims are canceled and claims 1, 2, 9, 14, 18, 19, 23, 27, 31, 34, 36, 45 and 50 are amended. Thus, following this amendment, claims 1-53 will remain pending. Applicant apologizes for the oversight of the prior response -- the text of claims 51-53 is included herewith. To clarify the amendments made to the claims to date, the differences are shown above between the claims as originally filed and the currently pending claims after this amendment.

In the Final Office Action, the Examiner objected to the drawings, rejected some claims over cited references, objected to some claims as being dependent on rejected base claims but otherwise allowable if rewritten in independent form and allowed other claims. The Examiner also objected to asserted informalities in claims 27 and 50. Each of these objections and rejections are addressed herein. As for the objection to the drawings, amendments are submitted herewith to overcome that objection. Amendments to the figures are submitted to conform Fig. 12 to the specification as originally filed. Figure 20 has been amended by adding step 1835 to conform to the specification as originally filed.

Applicant notes with appreciation the Examiner's allowance of claims 36-49 and 51-53 and the indication of allowability of claims 9-14, 18-25, 31 and 34-35 if rewritten in independent form. In order to focus the arguments below, claims 9, 18, 19, 23, 31 and 34 have been the rewritten as independent claims. Therefore, Applicant submits that such amendments overcome the objection with respect to claims 9-14, 18-25, 31 and 34-35. Thus, claims 9-14, 18-25, 31, 34-49 and 51-53 are now allowable.

Claims 1-8, 15-17, 26-30, 32-33 and 50 were rejected over cited references. In particular, claims 1-3, 6-7, 26-27, 30, 32 and 50 were rejected under 35 USC §102(b) as being anticipated by Wolf (U.S. Patent 5,983,383), claims 4-5, 15-17, 28-29 were rejected under 35 USC §103(a) as being unpatentable over Wolf, and claims 8 and 33 were rejected under 35 USC §103(a) as being unpatentable over Wolf in view of Dillon et al. (U.S. Patent 6,430,233). For least the reasons stated below, Applicant respectfully requests reconsideration and withdrawal of the §§102/103 rejections.

Of the rejected claims, claims 1, 27 and 50 are amended, to clarify the claimed subject matter and to address informality objections.

Claim 1, as amended, is allowable over the cited references as those references, alone or in combination, fail to disclose or suggest each element of claim 1. For example, amended claim 1 recites “generating a plurality of outputs symbols from a combined set of symbols...wherein the number of valid output symbols for a given set of input symbols is more than an order of magnitude larger than the number of input symbols”. This amendment is supported in the originally filed specification. As one example, paragraph 11 describes that the number of output symbols that can be generated for an input is orders of magnitudes larger than the number of input symbols. A further amendment to claim 1 clarifies that not all of the possible valid output symbols need be generated and transmission is not required.

In Wolf, the number of valid output symbols for a given set of inputs is only the inverse of a code rate ($1/\text{code rate}$), where the code rate is fixed for each of the possible codes that Wolf's MUX could select. For the Wolf system to be able to generate more output symbols than an order of magnitude more than the number of input symbols, the Wolf system would have to have a code rate of less than $1/10$. Due to the nature of the Wolf encoding and decoding process, using the Wolf system with a number of output symbols that varied by more than an order of magnitude would be impractical for the encoding and decoding processes due to the high computational requirements. Thus, there is nothing to suggest in Wolf that the claimed number of output symbols is possible for a given set of input symbols.

Therefore, claim 1 is allowable over Wolf. Applicant submits that claims 2-8, 15-17 and 26, being dependent on allowable claim 1, are also allowable for least those reasons.

Claim 27, as amended, is also allowable over the cited references as those references, alone or in combination, fail to disclose or suggest each element of amended claim 27. For example, claim 27 recites “a dynamic encoder...including an output symbol generator that generates a plurality of output symbols from a combined set of symbols...wherein the number of valid output symbols for a given set of input symbols is more than an order of magnitude larger than the number of input symbols”. For reasons similar to those of cited above

in connection with claim 1, Applicant submits that neither Wolf nor Dillon, alone or in combination, disclose or suggest such a dynamic encoder with the claimed output symbol generator.

Therefore, claim 27 is allowable over the cited references and claims 28-30 and 32-33, being dependent on allowable claim 27, are also allowable for least those reasons.

Claims 36 and 45 were allowed, but are amended here to broaden the claims with respect to the claimed regenerating step in claim 36 and the dynamic decoder in claim 45. Applicant submits that with the amendments to claims 36 and 45, those claims remain allowable over the art of record.

Claim 50 is also allowable over the cited references as those references, alone or in combination, fail to disclose or suggest each element of claim 50. For example, claim 50 recites a plurality of output symbols representing symbols generated from a combined set of symbols wherein the number of valid output symbols for a given set of input symbols is more than an order of magnitude larger than the number of input symbols. For reasons similar to those of cited above in connection with claim 1, Applicant submits that neither Wolf nor Dillon, alone or in combination, disclose or suggest such a plurality of output symbols.

Therefore, Applicant submits that claim 50 is allowable over the cited references.

Of the pending claims, claims 1, 27 and 50 are the independent claims rejected by the Examiner. Since a dependent claim depending from an allowable independent claim is also allowable over the cited references, the separate allowability of each dependent claim need not be argued even though a number of the rejected dependent claims include additional novel elements.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

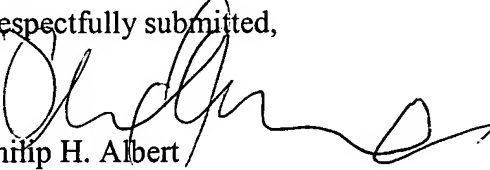
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PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

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